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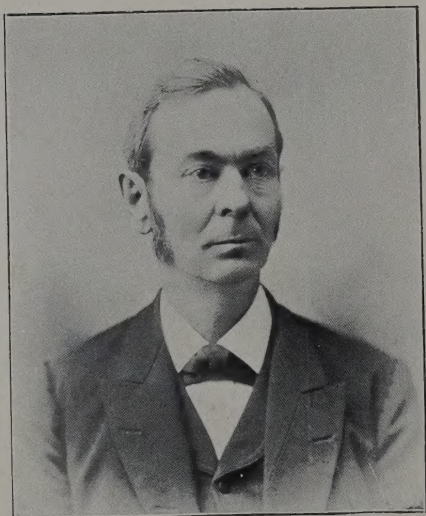
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*Very truly Yours
Chas H. Peck*

Journal of Mycology

VOLUME 8 — MAY 1902

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CONTINUATION OF THE JOURNAL OF MYCOLOGY

The Journal of Mycology was inaugurated in 1885 by the undersigned, Messrs. J. B. Ellis and B. M. Everhart joining in the editorship. Under this arrangement the publication was continued four years; it was then discontinued by reason of expense involved, but the United States Department of Agriculture, Division of Vegetable Pathology, issued three volumes during the years 1889-94.

The Journal was at first published almost exclusively in the interest of systematic or taxonomic Mycology. The later volumes however were much changed in character and devoted mainly to the economic phase of the subject. Important articles in the first four volumes were such as North American Geasters, Enumeration of the North American Cercosporas, New Kansas Fungi, Heterœcismal Uredineæ, North American Species of Ramularia, Canadian Fungi, The Phyllostictas of North America, New Species of Fungi, North American Agarics, Septorias of North America, etc.

In the last three volumes most space was given to such articles as Treatment of Gooseberry Mildew and Apple Scab, History of the Development of the Pyrenomycetes, Peach Rot and Blight, A New Holyhock Disease, Recent Investigations in Smut Fungi and Smut Diseases, Experiments in the Treatment of Plant Diseases, Treatment of Pear-Leaf Blight, etc.

There was from the first a generous support on the part of many amateurs and all of the working mycologists of the country but the number was of course then very limited. It is believed that now the good company has so much increased, the general

interest in Mycology so greatly widened and its usefulness so generally appreciated, that the continuation of the Journal—devoted to this broad and important branch of Science—will be welcomed by a very large constituency.

The State Agricultural Experiment Stations beginning the publication of their work four years after the *Journal of Mycology* was established turned the attention of a host of students and workers to economic mycology, and many of them have made important contributions as well to the morphological and physiological in addition to the economic aspects of the subject. The instruction to students and opportunities for work in Mycology at Universities, Colleges and Stations have been greatly extended in recent years. No other branch of botany has enjoyed such popularity or received more attention than Mycology.

It is hoped that such encouragement and assistance will be received in the revival and continuation of this *Journal*, both in the way of subscriptions and contributions for publications, that an enlarged and valuable publication will be possible in the very near future. The editor is by no means so sanguine as to expect that the expense will be fully met by such income, yet he does hope to make a *Journal* that will perhaps be worth more than the amount charged subscribers, and on that basis most earnestly solicits the aid of all working mycologists and of all the professional and amateur botanists of our country.

In no way will this *Journal* encroach on the mycological province of the State Experiment Stations, devoted as they necessarily and properly are, exclusively to the economic phases of the subject; on the other hand, it proposes to be an aid to such work by supplementing it in a very essential manner. To discourage and retard the investigations in the Morphology, Physiology, Ecology and Taxonomy of Fungi—the work that will be made prominent in the *Journal of Mycology*—would be on the part of Economic Mycologists seriously to interfere with the scope and value of their investigations. All branches of botany no less than all branches of science, must proceed simultaneously and harmoniously; the divorcement of any one will be to its detriment and a detriment to the whole. The co-operation of the botanists of the Stations is therefore solicited, their more technical and purely scientific publications, descriptions of new species, investigations into the life histories of Fungi, observations and notes on Ecology and Distribution, and other articles not adapted to popular Bulletins, are respectfully solicited. The mycologists of the Stations have broad opportunities for advancing the science, yet the intended practical character of the publications forbid much technical matter that is very essential to the promotion of this science.

The *Journal* proposes to be an index, and it is hoped that the aid of working mycologists will also make it an exponent of North American Mycology. Those contributing descriptions

of new species of Fungi, monographing large or small groups, or preparing other mycological articles are invited to make use of its pages. If haply this Journal would be made the repository for all descriptions of new species and all that pertains to the taxonomy of North American Fungi, the advantage to workers and to students would be invaluable.

It is hoped that issuing four numbers a year, in February, May, October and December, there may be given sufficiently prompt opportunity for publication of articles pertaining to any and every phase of mycology.

W. A. KELLERMAN.

OHIO STATE UNIVERSITY,
Columbus, May 20, 1902.

NOTES ON SOME FLORIDA MYRIOSTOMAS AND GEASTERS.

A. P. MORGAN.

More than a year ago, a correspondent, Mr. A. S. Bertolet, sent me a "Christmas Box" of specimens from Florida. It was well stuffed and seeming to be a "miscellaneous lot" I stowed it away and neglected to look at it for several months. I finally got it down and went through it expending my leisure time for three or four days upon it. I take this opportunity to acknowledge my pleasure in the offering, to thank Mr. Bertolet for the same, and to make note of some of the choice things in the box.

First, wrapped up together was a nest of small puff balls that looked very much like minute Indian Turnips; they were smooth above, wrinkled all around the sides and rooted from the base; they excited my curiosity greatly. After much cutting and prying and pulling to pieces I discovered them to be incipient *Myriostomas*. I had never seen the young unopened plant before.

There were some remarkable specimens of *Geaster velutinus* Morg.; they were large and fine, of much greater size than the type which Atkinson sent me from South Carolina. Although the species roots from the base like *Geaster saccatus* Fr., one of the specimens had stripped off its epidermis and vaulted upon its tips exactly as in *Geaster fornicatus* Huds. The species is more abundant and widely distributed than we had before suspected. Lloyd has a fine lot of it from Pennsylvania and the State Botanist notes it from New York.

Geaster radicans B. & C. is about the size and has much the same appearance as *Geaster fornicatus* Huds. as described by Fries and which Mr. Bertolet sent me from Northern Michigan;

in fact the two are confused in American and European herbaria. But *G. radicans* has a silky fimbriate mouth while in *G. fornicatus* the mouth is sulcate-striate.

In the box sometimes mixed together and sometimes wrapped in separate lots were vast numbers of two very small Geasters. One has the particles of sand bound to it all over by the mycelium and it has a protruding sulcate mouth; this is evidently *Geaster striatulus* Kalch. The other little Geaster roots from the base and has a fimbriate mouth. So far as figure and description go it is *Geaster floriformis* Vitt. and has never been noted in this country before.

Most of all however, I prize what I believe to be genuine specimens of *Geaster fimbriatus* Fr., the only ones I have ever seen that filled the bill, though I have seen many specimens labeled *Geaster fimbriatus* Fr. It is buried in the ground and mycelium issues from the whole outer surface; when it expands it carries away a coat of sand or else the sand strips off the cuticle. The most marked feature is, as stated by Fries, "*Sporidia fuliginosa*"! Fries' reference to Micheli's first figure on Tab. 100, however, is erroneous as he himself evidently suspects, in parenthesis. This figure of Micheli's plate applies to what we are accustomed to call in this country *Geaster triplex* Jungh. It should be called *Geaster stellatus* Linn.

A NEW GENUS OF FUNGI.

A. P. MORGAN.

The following genus with its type species *Acontium album* I have had on hand for some time. It will be recognized easily by its relationship to *Cephalosporium*. I can furnish a number of the specimens of the type to microscopists desiring them. By "hyphasma" I mean the general aspect of the mould to the naked eye or with a simple lens; this is different from the sense in which Link uses it.

ACONTIUM Morgan genus nov.—Hyphæ decumbent hyaline, septate, vaguely branched, the sporiferous branches uniform, ascending, each producing at the apex several spores which are conglomerate into a pellucid glomerule. Spores simple, cylindric or fusiform, smooth, hyaline.

A genus somewhat resembling *Cylindrocephalum*, but the spores are involved in mucus as in *Cephalosporium*.

1. *ACONTIUM ALBUM* Morgan sp. nov.—Hyphasma effused, thin, dense, white, minutely pubescent. Hyphæ creeping, slender, hyaline, scarcely septate, intricately much branched; the sporifer-

ous branches ascending, short, simple or with a few slender divisions at the apex, producing an elongated subfusiform glomerule of spores. Spores cylindric-fusiform, straight, hyaline, 18-25 x 1 mic.

Growing on the inner side of old bark of *Acer*. Sporiferous branches 40-60 mic. long, the glomerule clinging to the upper half usually leaving the apex naked; sometimes two or three or several adjacent glomerules are confluent. There are usually from five or six to a dozen spores in a glomerule.

2. *ACONTIUM MINUS* Morgan sp. nov.—*Hyphasma* effused, very thin, white. Hyphae creeping, slender, hyaline, septate branched; the sporiferous branches simple, tapering upward, ascending or erect, producing at the apex a glomerule of spores. Glomerules small, globose or obovoid, white, pellucid; spores cylindric, smooth, hyaline, obtuse at each end, 5-9 x 2 mic.

Growing on old pod of *Gleditsia*. The sporophores variable, tapering to a point, 20-60 mic. in length and not thicker than the spores.

3. *ACONTIUM VELATUM* Morgan sp. nov.—*Hyphasma* effused, thin, dense, flocculose, white. Hyphae long prostrate, intricately much branched, hyaline, septate; the spores conglutinate in subglobose or irregular glomerules and borne at the apex of slender branchlets. Spores variable in form and size, elliptic-oblong, subclavate and subcylindric, hyaline, smooth, 8-12 x 2.5-3.5 mic.

Growing on the cut surface of a black walnut stump apparently feeding upon the sap in which were spores of *Pionnotes*. Glomerules 15-25 mic. in diameter, in places much confluent, large and irregular.

OHIO FUNGI. FASCICLE III.

W. A. KELLERMAN, OHIO STATE UNIVERSITY.

The following species are included in Fascicle III:

- 43. *Exoascus deformans* (Berck.) Fckl., on *Amygdalus persica* L.
- 44. *Gymnosporangium globosum* Farlow, on *Crataegus punctata* Jacq.
- 45. *Melampsora populina* (Jacq.) Lév., on *Populus deltoides* Marsh.
- 46. *Melampsora salicis capreae* (Pers.) Winter, on *Salix amygdaloides* Anders.
- 47. *Melampsora salicis capreae* (Pers.) Winter, on *Salix amygdaloides* Anders.
- 48. *Microsphaera alni* (Wallr.) Salmon, on *Viburnum cassinoides* L.
- 49. *Phyllachora lespedezae* (Schw.) Sacc., on *Lespedeza capitata* Mx.
- 50. *Phyllachora graminis* (Pers.) Fckl. on *Elymus canadensis* L.
- 51. *Phyllachora graminis* (Pers.) Fckl. on *Panicum clandestinum* L.
- 52. *Phyllosticta paviae* Desm., on *Aesculus glabra* Willd.

53. *Phyllosticta phaseolina* Sacc., on *Stylosanthes biflora* (L.) B. S. P.
 54. *Puccinia andropogonis* Schw., on *Andropogon scoparius* Mx.
 55. *Puccinia podophylli* Schw. on *Podophyllum peltatum* L.
 56. *Puccinia emaculata* Schw., on *Panicum capillare* L.
 57. *Puccinia thompsonii* Hume, on *Carex frankii* Kunth.
 58. *Septoria helianthi* Ell. & Kellerm., on *Helianthus annuus* L.
 59. *Uromyces caladii* (Schw.) Farl., on *Arisaema triphyllum* (L.) Torr.
 60. *Uromyces caladii* (Schw.) Farl., on *Arisaema triphyllum* (L.) Torr.

Grateful acknowledgment is made for assistance in various ways by Messrs. Ellis, Arthur, Thaxter, Lloyd, and P. L. Ricker. As in the former Fascicle Dr. Arthur kindly inspected all the Uredineæ, but Dr. Thaxter identified No. 44, *Roestelia* "globosa."

43. *Exoascus deformans* (Berck.) Fckl.

On *Amygdalus persica* L. (cultivated.)

Columbus, Ohio, June 9, 1901.

Coll. W. A. Kellerman and E. D. Coberly.

"Ascomyces.....

"A species of this genus distorts the leaves of peaches in a most extraordinary way. The increase in thickness is caused by the interposition of eight or more strata of parenchymatous cells between the cuticular stratum and the oblong close-packed cells which in healthy peach leaves follow it. At the same time the intercellular spaces of the lower part are narrowed as the leaf contracts." M. J. Berkeley. Introduction to Cryptogamic Botany, 284. 1857.

44. *Gymnosporangium globosum* Farlow.

Roestelia globosa Thaxter.

On *Crataegus punctata* Jacq.

Lakeside, Ottawa Co., Ohio, Sept. 11, 1901.

Coll. W. A. Kellerman.

This name, *Roestelia globosa* Thaxter, was perhaps first used by Ed. Fischer, *Hedwigia*, 34:4, 1895, the description having been published in 1886 as given herewith:—

"Turning next to *R. lacerata*, there seems to have been a confusion of forms in this instance also. The material thus named occurring in America includes at least two, and perhaps three forms; one, A second form, *lacerata*, *y* infests the leaves of *Crataegus*, and does not appear until early in August; while a third and smaller form, *lacerata*, *z*, is found abundantly on *Pyrus malus* simultaneously with it.

"In the forms *y* and *z* the spores are smaller, about 20 μ in diameter, while the peridial cells are smaller and broader in proportion to their length, about $20 \times 65 \mu$, with a tendency to a rhomboidal shape; the ridges are deep and sharply cut as a rule, with the striæ clearly marked and running obliquely in two directions; those above the median line, where the striæ are horizontal, running in a plane nearly at right angles to those below it. The two forms seem nearly identical

microscopically; the spores and peridial cells of α are perhaps slightly smaller, but otherwise it differs from γ only by its smaller size and faded yellow color." Roland Thaxter. Proc. Amer. Acad. Arts & Sci. 14:266. 1886.

45. *Melampsora populina* (Jacq.) Lev.

Sclerotium populinum Persoon.

On *Populus deltoides* Marsh.

Columbus, Ohio,

December 10, 1901.

Coll. W. A. Kellerman.

Supplement to No. 23.

"*Sclerotium populinum*: epiphyllum congestum subimmersum incarnato-rufum, demum nigrescens, formis varium subrotundum aut angulato-confluens." D. C. H. Persoon, Synopsis Methodica Fungorum, 1:125. 1801.

46. *Melampsora salicis capreae* (Pers.) Winter.

Uredo farinosa a Salicis capreae Pers.

On *Salix amygdaloides* Anders.

Columbus, Ohio,

October 5, 1901.

Coll. W. A. Kellerman.

"*Uredo farinosa*: confluens farinosa ochracea.

a. Uredo Salicis capreae: maiuscula, colore pallidiore.

"Frequens in foliis *Salicis capreae*, praesertim in ramis iunioribus luxuriantibus ex trunco caeso erumpentibus occurrit per aestatem." D. C. H. Persoon, Synopsis Methodica Fungorum, 217. 1801.

47. *Melampsora salicis capreae* (Pers.) Winter.

On *Salix amygdaloides* Anders.

Columbus, Ohio,

March 10, 1902.

Coll. W. A. Kellerman.

Supplement to No. 46.

"Sclérote du Saule. *Sclerotium salicinum*.

"*S. Salicinum*. Pers. in Moug. et Nestl crypt. vog. n. 386.

"Il ressemble au *S.* du peuplier, mais sa couleur est d'un rouge un peu plus décidé, sa superficie plus luisante, ses pustules plus planes, puis régulièrement arrondies, plus éparses, et presque jamais soudées les unes avec les autres. M. M. Mougeot et Nestler l'ont trouvé dans les Vosges, au printemps, croissant à la surface supérieur des feuilles mortes du saule marceau. Cette espèce et la précédente ressemblent beaucoup aux *xyloma salicinum* et *populinum* surtout dans leur vieillesse, où elles deviennent d'un rouge un peu brun. Je ne sais si ces espèces ne devront pas être plutôt rapprochées des *xyloma* que des vrais sclérotiums." DeCandolle, Flore Française, 6:114. 1815.

48. *Microsp hæra alni* (Wallr.) Salmon.

Alphitomorpha penicillata var. *alni*. Wallr.

On *Viburnum cassinoides* L.

Lakeside, Ottawa Co., Ohio, September 15, 1901.

Coll. W. A. Kellerman.

"*Alphitomorpha alni* Wallr.

"A. subiculo effuso subtilissimo dense intertexto albo-griseo obso-
ltoque, sporangiis demum depressis nitidis minutissimus, capillitio radi-
ante expanso apice tumidulo adfixis.

....."Nisi subiculum albo-griseum perfectum ob-
venit et obsoletum, ut frequentius est, aegerrime modo hæc species inveniri
protest. Sporangia omnium minutissima, conferta, nudo oculo fere incon-
spicua, primum globoso, dein vero concava, nitida, nigro-fusca. Capil-
litium breve, diametrum sporangiorum paullulum superans, apice pul-
verulentum, indeque quasi incrassatum, filis subiculi adnatum, tandem
solutum, introrsum paullisper vergens." F. G. Wallroth, *Annalen der*
Wetteranischen Gesellschaft für die gesammte Naturkunde, 4:237. 1819.

49. *Phyllachora lespedezeæ* (Schw.) Sacc.

Sphaeria lespedezeæ Schw.

Stroma; no spores.

On *Lespedeza capitata* Michx.

Bowling Green, Wood Co., O., September 2, 1901.

Coll. W. A. Kellerman.

"*Sphaeria lespedezeæ*, L. v. S.

"S. semper macula latiori lutescenti in folio effusa insidet valde
varians magnitudine, rarius adaequans S. Trifolii. Peritheciis pluribus
quidem junctis in plaga atra consimili priorum maculis—sed non rariter
occurrit perithecium majusculum solitarium in minori plaga atronitenti,
demum evacuatum, praeditum ostiolo pertuso non elevato. Et in speci-
minibus vere confertis caespitulus atronitens non tuberculoso-rugulosus
evadit, peritheciis inclusis, sed tantum superficie inaequabili sed ostendit.
In simplicibus margo sterilis semper adest; centro quasi hemisphaerice
elevato." L. D. de Schweinitz, *Transactions of the American Philo-
sophical Society, Philadelphia, New Series*, 4:209. 1834.

50. *Phyllachora graminis* (Pers.) Fckl.

Sphaeria graminis Pers.

On *Elymus canadensis* L.

Columbus, Ohio, December 20, 1901.

Coll. W. A. Kellerman.

"*Sphaeria graminis*: epiphylla sublinearis maculaeformis nitente-
nigra, ostiolis latentibus.

"Hab. in foliis praesertim Elymi europaei exsiccatis, ubi ut macula,
latitudine et longitudine inaequalis sese exhibet et totum folium occupat."
D. C. H. Persoon, *Synopsis Methodica Fungorum*, 1:30. 1801.

51. Phyllachora graminis (Pers.) Fckl.

Spaeria graminis Pers.

On Panicum clandestinum L.

Sugar Grove, Fairfield Co., O., October 12, 1901.

Coll. W. A. Kellerman.

Supplement to No. 50.

52. Phyllosticta paviæ Desm.

Phyllosticta sphaeropsidea E. & E.

On Aesculus glabra Willd.

Columbus, Ohio, May 26, 1896.

Coll. W. A. Kellerman.

"Phyllosticta Paviae, Desmaz.

"P. maculis magnis, effusis, indeterminatis, fulvo-rufis vel castaneis. Peritheciis epiphyllis, minutissimis, sparsis vel approximatis, subnigris, convexis dein repressis. Cirrhis albidis. Sporidiis cylindrico-ellipticis; sporulis 2, globosis." J. B. H. J. Desmazières. Annales des Sciences Naturelles, Botanique, 8:32. 1847.

53. Phyllosticta phaseolina Sacc.

On Stylosanthes biflora (L.) B. S. P.

Sandusky, Erie Co., Ohio, September 8, 1901.

Coll. W. A. Kellerman.

"Phyllosticta phaseolina Sacc. Maculis amplis vagis, arescendo ochraceis, peritheciis sparsis lenticularibus, 70 micr. diam., pertusis; spermatisis ovoidea-oblongis, $6 \times 2\frac{1}{2}$, rectis, rarius inaequilateralibus, hyalinus." P. A. Saccardo. Michelia, 1:149. 15 Januar. 1878.

54. Puccinia andropogonis Schw.

On Andropogon scoparius Michx.

Columbus, Ohio, December 15, 1901.

Coll. W. A. Kellerman.

"P. Andropogi, L. v. S.

"P. maculis oblitteratis, acervis dense aggregatis, elevatis, fuscis, obtusis, linearibus, abbreviatis. Sporidiis fuscis. Quamquam non confluit, tamen fere tota folia occupat." L. D. de Schweinitz, Transactions of the American Philosophical Society, Philadelphia, New Series, 4:295. 1834.

55. Puccinia podophylli Schw.

On Podophyllum peltatum L.

Columbus, Ohio, May 30, 1901.

Coll. O. E. Jennings.

"Puccinia podophylli Sz.

"P. maiuscula subconcentrica spadiceo-nigra in macula lutescenti, sporidiis oblongis bilocularibus aculeatis.

"Passim in foliis Podophylli.—Sporidia ovalia sub lente lutescentia, aculeis prominulis rectis. Pedicelli non distincti brevissimi." L. D. de Schweinitz, Synopsis Fungorum Carolinae Superioris (excerpta), p. 46. No. 489. 1822. (Schrift d. Nat. Gesellschaft zu Leipzig.)

56. *Puccinia emaculata* Schw.

On *Panicum capillare* L.

Columbus, Ohio, January 5, 1902.

Coll. W. A. Kellerman.

"*P. emaculata*, L. v. S.

"*P. omnino emaculata*; primum acervis totis tectis rarioribus sparsis erumpentibus; demum saepe confluentibus, minutis, abbreviatis, angustis parallelis, utrinque plerumque acuminatis. Sporidiis aterrimis, minoribus; aquae immersis, fusciscentibus." L. D. de Schweinitz, Transactions of the American Philosophical Society, Philadelphia, 4:295. 1834.

57. *Puccinia thompsonii* Hume.

On *Carex frankii* Kunth.

Sugar Grove, Fairfield Co., O., October 12, 1901.

Coll. W. A. Kellerman.

"*Puccinia Thompsonii*; Epiphyllous or occasionally amphigenous. Sori scattered, oblong to linear oblong, 0.25–6mm. long reddish to chestnut-brown, erumpent, the ruptured epidermis flanking the sides. Spores oblong-clavate, constricted at the septum; vertex rounded; epispore rather thin, very smooth, color golden-brown or lighter, $48-68 \times 15-24$. Pedicel slender, hyaline, 1.5–2.5 times the length of the spore." H. Harold Hume. Botanical Gazette 29:352. May, 1900.

58. *Septoria helianthi* Ell and Kellerm.

On *Helianthus annuus* L. (Cultivated.)

Columbus, Ohio, June 6, 1901.

Coll. W. A. Kellerman.

"*Septoria helianthi* E. & K. Perithecia epiphyllous, immersed, brown, collapsing, 150μ diam., on brown definitely limited spots $\frac{1}{4}-\frac{3}{4}$ cm., diam., with a yellowish scarcely raised border; spores linear-filiform, hyaline, nucleate, becoming 3–5 septate, $30-70 \times 2-3 \mu$, generally attenuated towards one or both ends." J. B. Ellis and W. A. Kellerman, American Naturalist 17:1165. November, 1883.

59. *Uromyces caladii* (Schw.) Farl.

Aecidium caladii Schw.

On *Arisæma triphyllum* (L.) Torr.

Columbus, Ohio, June 20, 1901.

Coll. O. E. Jennings.

"*Aecidium caladii* Sz.

"*A. simplex* in longissimis tractibus, peridiis rufo-luteis sphaeriaemorphis, pulvere aurantio.

"*Peridia clausa sphaerias simulant.*" L. D. de Schweinitz, Synopsis Fungorum Carolinae Superioris (excerpta), p. 43. No. 457. 1822. (Schrift. d. Nat. Gesellschaft zu Leipzig.)

60. *Uromyces caladii* (Schw.) Farl.

Uredo caladii Schw.

Uredo and *Teleutospores*.

On *Arisæma triphyllum* (L.) Torr.

West Alexandria, Preble Co., O., July 4, 1901.

Coll. W. A. Kellerman.

"*Uredo caladii* Sz.

"*U. punctiformis solitaria, maculae magnae lutescenti insidens, pulvere fusco.*

"In aversa pagina foliorum *Caladii* frequens. Primum clausa, demum pulverem spargentia peridia." L. D. de Schweinitz, Synopsis Fungorum Carolinae Superioris (excerpta), p. 45. No. 480. 1822. (Schrift. d. Nat. Gesellschaft zu Leipzig.)

NEW SPECIES OF FUNGI FROM VARIOUS LOCALITIES.

J. B. ELLIS AND B. M. EVERHART.

ACIDIUM JACQUEMONTIAE E. & E. On leaves of *Jacquemontia pentantha*. Yucatan, Mexico. Com. Dr. Chas. F. Millspaugh, No. 1192.

Amphigenous, evenly scattered; aecidia hemispheric-erumpent, then flattened at the apex, finally open, deep cup-shaped with the margin erect and soon entire, about $\frac{1}{4}$ mm. diam., nearly slate color inside when dry, (color when fresh not seen); spores globose or angular, about 12 μ diam. or ovate or elliptical, 12-15 \times 10-12 μ , epispore thin, contents granular, component cells of the aecidia subelliptical, about 15 μ diam.

Cannot be the aecidium of *Puccinia opulenta* Speg. which has the aecidia in hypophyllous groups.

DOTHIORELLA RADICANS E. & E.—On dead stems of *Rhus toxicodendron* (the climbing var. *radicans*). Newfield, N. J. May 20, 1900.

Stromata small, about 1 mm. diam., bursting through the cuticle in a subseriate manner and confluent for 2-3 mm. Perithecia 3-12 in a stroma or sometimes scattered singly, hemispheric-prominent, about 1-3 mm. diam., rounded and obtuse at the apex, ostiolum inconspicuous; sporules ovate, pale, yellowish-brown, 10-13 \times 5-6 μ ; basidia slender, about as long as the spores.

This differs from *D. rhoina* E. & E. (Torr. Bull. 27:55. 1900) principally in its sporules nearly twice as large.

CYTISPORA PALLIDA E. & E.— (*Neocytophthora pallida* E. & E. in Herb.). On dead fallen limbs of *Quercus tinctoria*. Newfield, N. J. Nov.-April, 1901-2.

Stroma membranaceous, pallid-white and at first white-pulverulent, convex, 2-4 mm. diam., erumpent. loosely embraced by the ruptured epidermis, soon irregularly perforated above, multilocular, cells subovate; sporules numerous, allantoid, hyaline, 4-5x1 μ , borne on dendroidly branched basidia, 40x1 $\frac{1}{2}$ -2 μ .

This differs from the usual type of *Cytispora* but the essential characters are those of that genus. The specimens were found associated with *Polyporus pocula* (Schw.) Cke. with which it may be generically connected.

CONIOTHYRIUM JUNCUS E. & E.— On *Juncus balticus* (dead scapes). Andrews, Oregon. Aug., 1901. Griffiths & Morris.

Perithecia scattered, imperfect, subcuticular, about $\frac{1}{4}$ mm. diam., visible through the thin cuticle as minute, black circles with a white spot in the center. Sporules globose, olivaceous, 1 $\frac{1}{2}$ -2 μ . diam., borne on fasciculate basidia. Simple or branched from the base, 12-15x2 μ .

On account of the imperfectly developed perithecia, this approaches the *Melanconiaceae*.

DIPLODIA IVAICOLA E. & E.— On dead stems of *Iva xanthifolia*. Aberdeen, South Dakota. April, 1896. David Griffiths.

Perithecia scattered; 150-200 μ diam., subcuticular, raising the epidermis into small pustules which are pierced above by the papilliform ostecolium which is soon perforated. Sporules oblong or oblong-elliptical, uniseptate, scarcely constricted, 10-16x6-7 μ yellowish-brown, obtuse at the ends.

ASCOCHYTA SMILACIS E. & E.— On living leaves of *Smilax hispida*. Yates, N. Y. (Fairman, 1512.)

Spots small (1-4 mm.), of irregular shape, dirty-white with a brown border or situated in a large brown space 1-2 cm. diam. Perithecia scattered over the spots, epiphyllous but mostly visible on both sides of the leaf, punctiform, black. Sporules elliptical, obtuse, smoky-hyaline, uniseptate but not constricted, 6-8 x 4 μ .

This differs from the *Ascochyta* mentioned in the description of *Phyllosticta smilacis* E. & M. (in the North American *Phyllostictas*) in its smaller, smoky sporules.

SEPTORIA SPICULISPORA E. & E.— On leaves of *Euonymus*, Delaware (Commons).

Spots orbicular, 1-3 mm. diam., white with a purple margin; perithecia semiimmersed, epiphyllous, black, subglobose, 100-110 μ diam. Sporules spiculiform, continuous, 15-20x $\frac{3}{4}$ -1 μ .

S. euonymella Pass. and *S. euonymi-japonici* Pass. Both have sporules 2 $\frac{1}{2}$ μ thick. *S. euonymi* Rabh. has spots scarcely margined, perithecia lenticular and sporules 1 $\frac{1}{2}$ μ thick. This was issued in N. A. F. 2675 as *Phyllosticta euonymi* Sacc.

SEPTORIA PENTSTEMONICOLA E. & E.—On leaves of *Pentstemon gracilis*. Aberdeen, South Dakota, July, 1896. (David Griffiths.)

Spots subindefinite, 2-3 mm. diam., brown, soon confluent giving the leaf a dried up, dead appearance. Perithecia punctiform, minute ($75\ \mu$), scattered over the leaf and not confined to the spots. Sporules filiform, slightly curved, faintly nucleolate, $30-45 \times 1-1\frac{1}{2}\ \mu$.

Differs from *S. pentstemonis* E. & E. in the character of the spots and in its longer sporules.

SEPTORIA CORYDALIS Ell. & Davis.—On leaves of *Corydalis glauca*, Vilas Co., Wis. July, 1901. (Davis No. 019.)

Spots white, transparent, definite, surrounded by a reddish-brown halo, roundish or irregular, 2-6 mm. diam. Perithecia few, black, visible on both sides of the leaf but more distinct above, sporules cylindrical, $3-5 \times 1-2\ \mu$.

SEPTORIA LIATRIDIS Ell. & Davis.—On leaves of *Liatris spicata*, Racine, Wis. June, 1901. (Davis 013b) and *L. scariosa* (013).

Spots round or elliptical, 2-4 mm. diam., of a dirty brown color, with a narrow slightly raised margin, finally thin, white and transparent; perithecia innate, more prominent above, small $75-80\ \mu$. Sporules filiform, continuous, hyaline, nearly straight, $20-30 \times 1\frac{1}{4}-1\frac{1}{2}\ \mu$.

ZYTHIA RHODIA E. & E.—On dead stems of *Rhus radicans*, Newfield, N. J. May, 1900.

Perithecia cespitose, ovoid, light yellow, $150 \times 200\ \mu$, surface slightly granular-roughened, astomous, collapsing to cup-shaped, clustered on a rather soft, tubercular, yellowish stroma about 1 mm. diameter and outwardly not distinguishable from a *Nectria*. Sporules oblong-elliptical, hyaline, continuous or faintly unisepate, $6-10 \times 2\frac{1}{2}-3\frac{1}{2}\ \mu$, on slender basidia mostly a little curved and permanently attached, 8-15 μ long.

CYLINDROSPORIUM INFUSCANS E. & E.—On leaves of *Elymus condensatus*. Waitsburg, Wash. Oct. 1899. (Robt. M. Horner, No. 1406.)

Acervuli innate, black outwardly, elliptical, $100-110 \times 120-150\ \mu$, erumpent above, seriate between the nerves of the leaf; conidia lanceolate-cylindrical, straight or slightly curved or bent, continuous or slightly curved; hyaline with a slight yellowish tinge, $40-55 \times 3-4\ \mu$.

The fungus gives the upper side of the leaf a dark smoky hue, but there are no spots.

PESTALOZZIA MALI E. & E.—On apple tree leaves. Newfield, N. J. Aug. 18, 1900.

Spots circular, 1-3 mm. diam., white or cream color above with a narrow, purplish-brown margin, rusty-brown below; acervuli epiphyllous, innate-erumpent, sublenticular; conidia cylindrical, 5-septate, scarcely constricted, $20-25 \times 6-7 \mu$, the terminal cells conical and hyaline, intermediate cells brown, the apical cell with a single short ($6-8 \mu$), oblique, hyaline bristle-like crest; basidia simple, slender, about as long as the conidia, the riper part remaining to the base of the spore which in this way becomes bicristate.

The conidia are not quite as broad as in *P. crataegi* E. & E. and there is no concentric arrangement of acervuli as in that species. The conspicuous spots in *P. mali* afford a striking and easily recognizable character. Often one or more of the light colored spots are included in a larger brown spot, thus giving the leaf a marble-like aspect.

RAMULARIA HYDROPHYLLI E. & E.—On *Hydrophyllum capitatum*. Blue Mts. Columbia Co., Wash. April 1900. (Robert M. Horner, 1494.)

Spots dark-brown, irregular in shape, 3-6 mm. long, mostly extending out to the margin of the leaf or occupying the tips; hyphae amphigenous, caespitose, hyaline, continuous, geniculate above and slightly toothed, $20-30 \times 5-7 \mu$, forming a loose white layer like *Peronospora*; conidia narrow-ovate, or elongated-clavate, rounded at each end, $20-30 \times 7-10 \mu$.

CERCOSPORA SIMULANS Ell. & Kellerm.—On leaves of *Falcata comosa*, Gauley Mts., W. Va. Aug. 1901. (Prof. W. A. Kellerman, 3775.)

Hypophyllous: hyphae in loose, spreading tufts, geniculate and faintly septate, brownish, $75-100 \times 3-4 \mu$, forming reddish-brown patch 2-3 mm. diam., leaf mottled above with corresponding whitish or reddish subindefinite spots subangular and partly limited by the veinlets of the leaf; conidia clavate-oblong, hyaline, 1-4 (mostly 3-) septate, $20-40 \times 4-6 \mu$.

Differs from *C. monoica* Ell. & Holw. on the same host, in its hypophyllous growth and shorter, broader conidia.

FUSARIUM SPARTINAE E. & E.—On leaves of *Spartina stricta*. Pacific Grove, Cal. July 1900. (Robt. M. Horner, 1488.)

Hyphae arising from a minute, tremelloid base, branching above, hyaline, forming a loose, flocculent, pale orange-colored growth on the lower side of the dead leaves; conidia terminal, oblong-elliptical or oblong-fusoid, straight, 1-3 septate, $12-15 \times 3-4 \mu$, ends mostly obtuse.

DIATRYPE MEGASTOMA E. & E.—*Jour Mycol.* I. p. 141, N. A. F. 1556, is the same as *Eutypella cerviculata* Fr.

Eutypella alpina E. & E.—*Proc. Phil. Acad.* 425. 1895, N. A. F. 3331, 3436 is also *Eutypella cerviculata* Fr.

LOPHIOTREMA OENOTHERAE E. & E.—Torr. Bull. 24:128. 1897. Species found at Newfield, N. J., July 1901. Fully matured, have sporidia distinctly 3-septate or constricted at the septa, $15-20 \times 5-6 \mu$.

PHYLLOSTICTA CLYPEATA E. & E.—On living limbs of *Pirus malus*. Corvallis, Oregon, May 1902. (A. B. Cordley.)

Spots discoid or shield-shaped, dull yellowish, $\frac{1}{2}$ -1 cm. diam., circular or elliptical, closely embraced by the upturned epidermis, which, however, soon shrinks away, leaving the margin partially free. Perithecia scattered on the spots, depressed-globose, slightly prominent, $150-200 \mu$ diam. Sporules elliptical or subglobose, hyaline, $3\frac{1}{2}-4 \times 2\frac{1}{2}-3 \mu$.

Apparently very injurious to the trees.

PHYLLOSTICTA VIRGINICA E. & E.—In N. A. F. 2830; is doubtless only a form of *P. destruens* Desm. This fact was recognized in preparing the copy for the "North American Phyllostictas," as shown by the reference under *P. destruens* on p. 15, but through some oversight was not fully explained and corrected.

In the North American Phyllostictas, under *Phyllosticta destruens*, add 2676 to the N. A. F. reference, and under *P. vulgaris* cancel the Syn. *Phoma virginiana* and the reference to N. A. F. 2830.

PUCCININA CIRCINANS E. & E.—Bull. Torr. Bot. Club. Feb. 1900, p. 61.

Change this to *Puccinia chasmatis* E. & E. There is already a *Puccinia circinans* Fckl. Symb. p. 53.

VENTURIA RUBICOLA E. & E.—On dead canes of *Rubus occidentalis*, Tacoma Park, D. C. Oct. 1900. (C. L. Shear, 903.)

Perithecia thickly scattered; subcuticular, membranaceous, or rather coarse cellular texture, pierced above, $80-110 \mu$ diam., tardily rupturing the cuticle and suberumpent, finally collapsing, surrounded by a ring or fringe of short, black continuous bristles mostly a little curved, $20-40 \times 3 \mu$. Asci sessile aparaphysate, oblong, $50-60 \times 10-12 \mu$. Sporidia crowded-biseriate, oblong-elliptical, biguttulate (becoming unseptate?) hyaline, $12-15 \times 6-8 \mu$.

Differs from *V. kunzei* Sacc. on *Rubus caesius* in its caulicolous growth and large asci and sporidia.

HYPOCOPRA KANSENSIS E. & E.—On cow dung. Rooks Co., Kansas. May 1901. (Bartholomew, 2871.)

Perithecia ovate, $\frac{3}{4}$ -1 mm. high, $\frac{1}{2}$ - $\frac{3}{4}$ mm. broad, entirely sunk in the stroma except the erumpent, hemispherical, soon perforated ostiolar; stroma 1-2 mm. diam., black on the surface, inside about the same color as the matrix, slightly convex, often confluent for 1 cm. or more. Asci cylindrical, p. sp., $200-230 \times 25-30 \mu$, thin, septate; sporidia obliquely; paraphyses stout, $4-5 \mu$

uniseriate, elliptical, hyaline at first, becoming opaque, slightly narrowed at the ends, $40-52 \times 18-22 \mu$.

Differs from *H. fimeti* Pers. in its much larger sporidia.

ROSELLINIA BIGELOVILÆ E. & E.—*Am. Nat.* 341. 1897. N. A. F. 3520. When this was published the fact that the sporidia are compressed was overlooked. From careful re-examination of the original species we give a revised measurement of the sporidia $6-9$ (mostly $7-8$) $\times 4-5\frac{1}{2} \mu$, and about $3\frac{1}{2} \mu$ thick.

What is evidently the same thing has since been found on dead stems of *Amorpha fruticosa*, Rooks Co., Kans. (Bartholomew, 2928). On this host the sporidia are somewhat larger, $8-10\frac{1}{2} \times 5-5\frac{1}{2} \mu$, and rather more distinctly compressed ($3-3\frac{1}{2} \mu$ thick). Species from the same locality and collector on *Negundo aceroides* have sporidia $8-10 \times 4-5$, 3μ thick. The perithecia on these hosts are ovate-globose, here and there densely crowded and subconfluent, and range from $250-350 \mu$ diam. Ostium papilliform or conic-papilliform.

CUCURBITARIA ARIZONICA E. & E.—On dead branches of *Acacia grayii*, Tucson, Arizona, June, 1891. (David Griffiths).

Perithecia erumpent-superficial, in patches $\frac{3}{4}$ mm. in extent, or thickly scattered, globose, brownish-black, about $\frac{1}{2}$ mm. diam., with a papilliform ostium, collapsing but not deeply. Asci cylindrical, p. sp. $75-80 \times 12 \mu$, short-stipitate, paraphysate. Sporidia mostly obliquely uniseriate, oblong-elliptical, 3-septate and submuriform, slightly constricted at the middle septum, straw-yellow becoming dark brown, $14 \times 6-8 \mu$.

PLEOSPORA ALISMATIS E. & E.—On dead stems of *Alisma plantago*. South Dakota (David Griffiths).

Perithecia scattered, erumpent and hemispheric-prominent, or strongly convex, about 200μ diam. Asci clavate-cylindrical, short stipitate, $90-100 \times 12-15 \mu$, with abundant filiform paraphyses. Sporidia uniseriate or partially biseriate above, fusoid-oblong, inequilateral, 7-9-septate, one or more of the cells divided by a partial longitudinal septum, $22-77 \times 10-12$ (exceptionally 15) μ .

The distinctly inequilateral sporidia attenuated towards each end are characteristic.

PHYSALOSPORA LEPACHYDIS E. & E.—On living but partly faded leaves of *Lepachys columnaris*. Billings, Montana, Aug. 1898. (Williams & Griffiths).

Perithecia epiphyllous, gregarious, semi-erumpent, about $\frac{1}{4}$ mm. diam., with a papilliform ostium soon perforated. Asci cylindrical, short-stipitate, paraphysate, $60-65 \times 8$, or when the sporidia are partly biseriate, $10-12 \mu$ broad. Sporidia mostly uniseriate, elliptical with the ends broadly rounded, often with two large nuclei, $10-12 \times 5-6 \mu$.

PHYSALOSPORA MINIMA E. & E.—On dead canes of *Rubus strigosus*. Tuskegee, Ala. (Prof. G. W. Carver).

Perithecia evenly scattered, subcuticular, the minute ostiolum barely rupturing the epidermis, small ($80-90\ \mu$). Asci oblong-clavate, short-stipitate, paraphysate, $40-50 \times 6\ \mu$. Sporidia irregularly crowded in the asci, elliptical, mostly narrowed at the ends, $9-11 \times 3-4\ \mu$.

Smaller in all parts than *P. vagans* E. & E. var. *rubi* on the same host.

PLEOSPORA KANENSIS E. & E.—On dead stems of *Melilotus alba*. Rooks Co., Kansas, June, 1901. (Bartholomew, 2888).

Perithecia scattered, subcutaneous, ovate-globose $\frac{1}{4}-\frac{1}{3}$ mm. diam., raising the closely appressed cuticle into pustules pierced at the apex by the conical or short-cylindrical ostiolum, finally collapsing to cup-shaped. Asci clavate, rounded above, gradually narrowed below to the short, nodular stipe-like base; paraphyses stout ($3\ \mu$ thick), septate, hyaline; sporidia biserial, oblong-obovate, rounded above, narrowed below and bent a little to one side, 5-6-septate, with a longitudinal septum more or less distinct running through 2 or 3 of the middle cells, slightly constricted in the middle, bright straw-yellow, $20-22 \times 7-9\ \mu$.

This comes very near *P. meliloti* Rabh. on the same host, but the shorter clavate asci, the smaller sporidia and short-cylindrical ostiolum may perhaps separate it. *P. dura* Niessl has larger perithecia which do not collapse.

LEPTOSPHERIA ASTERICOLA E. & E.—On dead stems of *Aster multiflora*. Rooks County, Kansas, June, 1901. (Bartholomew, 2885).

Perithecia erumpent-superficial, globose, becoming depressed or collapsing to cup-shaped, subseriately arranged, sometimes 2-3 confluent, ostiolum papilliform, more distinct in the collapsed perithecia. Asci subcylindrical, short-stipitate, paraphysate, $80-110 \times 7-8\ \mu$; sporidia biserial, fusoid, slightly curved, 3-septate, not constricted, straw-colored, $30-40 \times 3-4\ \mu$. Pycnidial perithecia resembling the ascigerous but not collapsing, sporules oblong or oblong-elliptical, hyaline, $6-8 \times 2\frac{1}{2}-3\ \mu$, uniseptate.

Allied to *L. fusipora* Niessl and *L. leptospora* DeNot., but both have much shorter, broader sporidia and the latter has the pycnidial spores continuous.

METASPHERIA SUBSERIATA E. & E.—On dead culms of *Panicum virgatum*, Rooks County, Kansas, March, 1901. (E. Bartholomew, 2841).

Perithecia buried in the unchanged substance of the culm, raising the epidermis into distinct pustules pierced by the papilliform ostiolum, depressed-globose, $\frac{1}{3}-\frac{1}{2}$ mm. diam., scattered

singly or arranged in short series and covered by the blackened epidermis, then more or less confluent. Asci cylindrical, sessile, obscurely paraphysate, $60-75 \times 6-7 \mu$, mostly curved; sporidia biseriate, fusoid, curved, faintly 1-3-septate, not constricted, yellowish-hyaline, $30-35 \times 2\frac{1}{2}-3 \mu$.

In the species examined most of the sporidia showed only one septum across the middle, but in some two additional septa were visible.

MELANCONIS (MELANCONIELLA) nyssægena E. & E.—On dead limbs of *Nyssa multiflora*, Newfield, N. J., October 23, 1900.

Stroma cortical, formed of the scarcely altered substance of the bark, circular, depressed-globose, about 2 mm. diam., raising the bark into little pustules which are ruptured at the apex by the fascicle of black, smooth, rounded ostiola. Perithecia circinate, globose, black and shining inside, about $\frac{1}{2}$ mm. diam., sporidia uniseriate, elliptical or oblong-elliptical, uniseptate and constricted, becoming olive-brown, $30-40 \times 12-20 \mu$ (mostly $12-15 \mu$).

PHYLLACHORA SERIALIS E. & E.—On *Spartina stricta*. Pacific Grove, Cal. July, 1900. (Robt. M. Horner, 1487).

Stroma seriate between the nerves of the leaf, punctiform and buried at first, then suberumpent and more or less confluent for 2-3 mm. The separate stromata are about $\frac{1}{2}$ mm. in diam., and the ascigerous cells remain sunk in the parenchyma of the leaf. Asci densely fasciculate, clavate-cylindrical, short-stipitate, $75-80 \times 12-15 \mu$. Sporidia obliquely uniseriate or subbiseriate, ovate, hyaline, continuous, $10-12 \times 5-6 \mu$.

BOTRYOSPLÆRIA HYSTERIOIDES E. & E.—On leaves of *Hesperaloe dayi*, Peyotes, Mexico. April 27, 1900. (Dr. Wm. Trelease).

Spots oblong-elliptical, soon confluent for 10 or more cm., reddish-brown, becoming greyish-white with a reddish-brown border. Perithecia globose $200-300 \mu$ diam., lying 2-4 together in a narrow hysteriform stroma acute at each end, and $\frac{1}{2}-\frac{3}{4}$ mm. long, covered by the thin, whitened epidermis which is soon ruptured by the obscurely papilliform ostiolum. Asci broad clavate oblong, $75-100 \times 25-30 \mu$, contracted below into a short stipe-like base; paraphyses inconspicuous and obscure. Sporidia oblong, slightly narrowed at the ends, with granular contents, with or without a large vacuole, hyaline with a slight yellowish tinge, $25-30 \times 8-12 \mu$.

On the same spots are scattered perithecia with sporules of the *Diplodia* type, $5-7 \times 4-5 \mu$ (*Diplodia hesperaloes* E. & E.); Others with globose, brown, continuous, $6-7 \mu$ sporules (*Coniothyrium* sp.), others again with oblong or subcylindrical, hyaline, 3-5 (mostly 3-) septate sporules $60-80 \times 8-12 \mu$ (*Phleospora*

minor E. & E.) These three forms of stylospores are apparently generically connected with the ascigerous form. This last mentioned may be only a more mature stage of growth of *Septoria megaspora* Speg. which is described as having uniseptate spores and perithecia not on spots. The fungus on *Hesperaloe* has typically 3-septate spores and the spotted leaves are very conspicuous. Dr. Trelease has sent on *Agave* sp. from Mexico, a fungus that in some respects comes nearer *Spegazzini's* plant but in this, too, the spores are 6-8-septate. *Septoria megaspora* Speg. seems more properly a *Phleospora*.

DOTHIDEA YUCCÆ E. & E.—(*Phyllachora yuccæ* E. & E. Torr. Bull. 22:440. 1895.) On leaves of *Yucca angustifolia*, Manitou, Colorado. July, 1895. (Prof. E. T. Harper, 474).

Stromata gregarious amphigenous, small, sunk in the substance of the leaf and covered by epidermis which is soon ruptured, mostly oblong, $\frac{1}{2}$ - $1\frac{1}{2} \times \frac{1}{2}$ mm., surrounding and blackening the leaf for $\frac{3}{4}$ cm. in extent, the adjacent parts of the leaf being entirely free from the fungus. Ascigerous cells numerous, small. Asci oblong-cylindrical, $75-80 \times 10-12 \mu$. Sporidia mostly biserial, ovate-oblong, yellow-brown, uniseptate and constricted, $12-15 \times 5-6 \mu$.

This is evidently the mature state of the fungus cited above, the larger dimensions of the asci being due to their more perfect development.

HYSTEROGRAPHIUM NUCICOLA (Schw.) Syn. N. A. F. 2080. (*H. hians* E. & E. in Herb.)—On old hickory-nuts lying on the ground. Newfield, N. J., April 7, 1902.

Gregarious elongated $\frac{3}{4}$ -1 mm. long by nearly $\frac{1}{2}$ mm. wide, lying in various directions on the matrix, shining black, smooth, not distinctly striate, straight or curved, ends obtuse, lips distinctly gaping. Asci oblong-clavate, paraphysate, $60-70 \times 12-15 \mu$. Sporidia ovate-oblong biserial, hyaline, becoming dark brown, 4-6-septate, with a longitudinal septum running through 1-3 of the cells, sometimes distinctly constricted in the middle but often scarcely constricted at any of the septa, $15-22 \times 6-9 \mu$.

In the shape of the perithecia and the partly open lips this differs from the description and specimens of *H. nucicola* Schw. in Herb. Schw. at the Acad. Nat. Sci. Philadelphia. The surface of the nut is more or less blackened around each group of perithecia but this is more like a discoloration than a crust.

PUCCINIA PECKII (DeToni) Kellerm. N. N.

Infection Experiments and Correction of Labels, O. F.

W. A. KELLERMAN

A great quantity of aecidium on *Onagra biennis* (L.) Scop. (*Oenothera biennis* L.) was noticed the past season adjacent westward to a still larger area, two or three acres in extent, of *Carex trichocarpa*, in a broad and partially drained swail a few miles south of Columbus. This suggested the probable connection of the abundant Rust on the Sedge with the equally abundant *Aecidium* on the Evening Primrose.

The Rust seemed to be the form usually called *Puccinia caricis*, or *Puccinia caricina*, of wide distribution on this host. Under the name of *Puccinia caricina* specimens were issued in the second fascicle of *Ohio Fungi* as No. 28; the aecidium on *Onagra* was issued as No. 17 in the same set of exsiccata.

Inoculation experiments have just been completed, sowings of the teleutospores from the *Carex* producing abundant spermatogonia and aecidia on the *Onagra*. I am able to state also that Dr. Arthur has at the same time carried out similar infection experiments with material which I furnished from the *Carex* growing in the area referred to above. He has also used with similar positive results spores on this host from many localities in the states of Iowa and Wisconsin, as stated in a letter just received. This confirmation of results obtained by each of us is very gratifying, and it is with Dr. Arthur's approval that I propose the new combination as above.

It becomes necessary, therefore, to correct the labels of O. F. Nos. 17 and 28; they should be as follows:

17. *Puccinia peckii* (DeToni) Kellerm. Aecidiospores.
28. *Puccinia peckii* (DeToni) Kellerm. Teleutospores.

NOTES ON THE NORTH AMERICAN MYCOLOGICAL
LITERATURE OF 1901

W. A. KELLERMAN

The activity of the American mycologists is shown in the very large number of important contributions published in magazine or book form. A large list of new species has been described by Ellis & Everhart, Thaxter, Earle, Peck, Griffiths, A. L. Smith, Dietel and Holway, Arthur, Tracy, Clements, Olive, and others. Lloyd is continuing the generous distribution of his *Mycological Notes*, mostly with illustrations.

Important contributions in Morphology and Cytology have also appeared. Several text-books have been issued, a fair amount of space generally being allotted to Fungi. One that deserves special mention here is Campbell's *University Text-book of Botany*¹ which will doubtless prove invaluable to the general student. Nearly four pages are devoted to the Myxomycetes, six to Bacteria, and forty-seven pages to the Fungi. A good general discussion introduces each subject; then follows the more recent classification with life histories of many representatives, illustrated with numerous and very satisfactory figures. Half-tones, the fad of the day, but indispensable in illustrating some subjects, do not occur in this portion of the text.

In Bacteriology we have an admirable treatise by Conn,² no less indispensable to the professional botanist than to the amateur and general reader. The simple, clear style, free from technical terms, makes this an attractive book, full as it is of up to date general Bacteriology, given in chapters that deal with the Nature of Bacteria, Fermentation, The Manure Heap and Sewage, Bacteria in the Dairy, and Parasitic Bacteria. Other topics amply treated are the Origin of Soil, Bacteria in Water, Bacteria relative to Farm Products, Preservation of Foods, Resistance Against Bacteria, Anthrax, Tuberculosis and other Bacterial Diseases, and Disinfection.

For students and amateurs interested in Mushrooms the treatises of Professor Atkinson³ and Nina L. Marshall⁴ and also Peck's Report of the State Botanist for 1900⁵ are important and admirable, even sumptuous publications. In this group is manifest the indispensable aid of camera and brush. The Marshall book is designed for beginners, and is to be highly commended. Even moderate concentration and patience on the part of amateurs will yield good returns, and accurate as well as useful knowledge of our higher fungi may be gained with the book and the specimens in hand. Atkinson's book is more extensive and ought to be in the hands of all interested in Mushrooms, the amateur no less than the student and professional botanist. The perfect pictures of the species are accompanied by plain scientific

(1) *A University Text-book of Botany*. Douglass Houghton Campbell. New York. The Macmillan Company. 1902. Pp. XV and 579.

(2) *Agricultural Bacteriology*. H. W. Conn. Philadelphia. P. Blakiston's Son & Co. Pages VI and 412. Price \$2.50. 1901.

(3) *Mushrooms edible, poisonous, etc.* George Francis Atkinson. Ithaca, N. Y. Andrews & Church. Pages 322. With 230 photographs and colored plates.

(4) *The Mushroom Book, A Popular Guide*. Nina L. Marshall. New York. Doubleday, Page Co. Pages 167. With many illustrations in color and black and white, photographer from nature. Price \$3.00.

(5) Reprinted from the 54th Annual Report of the New York State Museum.

text. The scope of the work can be seen by the more important chapter headings, as Form and Character of the Mushrooms, Development of the Mushroom, the Agarics (and other groups), Collection and Preservation of the fleshy Fungi, Cultivation of Mushrooms, Recipes for Cooking Mushrooms, Chemistry and Toxicology of Fungi, Analytical Key, and Glossary. Peck's fine and well-illustrated Reports, this as well as those of previous years, cannot be too highly commended, and fortunate are those who are successful in procuring copies. Besides the new species described in this Report, including a synoptical table of New York species of *Trametes*, pp. 173-186 are devoted to an account of Edible Fungi, accompanied by thirteen double-page colored plates.

INDEX TO NORTH AMERICAN MYCOLOGY

*Alphabetical List of Articles, Authors, Subjects, New Species
and Hosts.*

W. A. KELLERMAN

This installment of the Index represents the mycological literature of North America for the entire year 1901. Authors are asked kindly to assist in prompt publication of the index of their articles hereafter by forwarding copies of Magazines which contain the same or of separates, with original paging, volume, date, etc.

The possible omissions for 1901, or failure of prompt listing of articles, authors and subjects in the future, will be much regretted, and an earnest request is hereby expressed that attention may be called immediately to such items by the authors themselves.

Separates will be issued *printed on one side of page only*; the opposite blank page serving for corrections or additional entries or notes by those using the list.

Working mycologists and those in charge of libraries can with very little labor, if desired, *use the reprints for card-indexing*, the separate items being clipped from the pages and pasted on the library cards.

It is designed to issue separately, as indicated above, once a year, the accumulated references properly placed in alphabetical order.

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NOTES

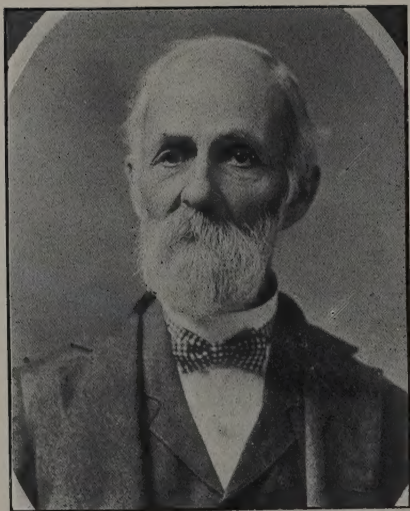
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